

21-97 EPOXY MICA PAPER SEGMENT PLATE

Composition

21-97 is an Epoxy resin bonded mica paper plate milled to NEMA grade 3P thickness tolerance. The epoxy resin in 21-97 is fully cured to “C” stage giving the material maximum resistance to flow under thermal and compressive stresses. There are several grades available depending on the type of mica paper, binder content, application & surface characteristics.

Application

21-97 plate is used extensively for segment insulation in all types of commutators of small, medium and large motors including traction motors. 21-97 plate has good machining characteristics and may be sawed or punched to make segments, washers or discs and other flat parts.

Product Data

Property	Unit	Value
Thermal Classification	K	428
Thickness range	mm	0.40 - 1.6
Thickness Tolerance	mm	Avg. ± 0.010 Individual ± 0.020
Binder Content	%	8 ± 3
Dielectric Strength	kV/mm	20 minutes
Heat stability as per IEC 371-2-11; 523 K – 573 K / 600 kg/cm ² / 30 minutes.		No exudation of binder & no mica displacement
Compressibility as per IEC 371-2-12; at 600 kg /cm ² pr	%	At R.T. - 3 max. At 473 K - 2 max.
Flexural strength	N/cm ²	> 220 for Phlogopyte based & 21-97-02. > 300 for Muscovite based

Different Grades

Code No	Mica Paper	Binder Content, %	Surface	Application
21-97-01	Uncalcined muscovite	07 - 09	Milled	Traction
21-97-03	Uncalcined muscovite	05 - 07	Milled	Traction
21-97-04	Semicalcined muscovite	07 - 11	Milled	Traction
21-97-05	Uncalcined phlogopyte	09 - 11	Milled	Traction
21-97-06	Semicalcined phlogopyte	09 - 11	Milled	Traction
21-97-07	Uncalcined muscovite	07 - 09	Unmilled	Traction
21-97-08	Uncalcined muscovite	07 - 09	Milled	Traction
21-97-10	Uncalcined Muscovite	06 ± 01	Milled	Switchgear
21-97-11	Uncalcined muscovite	08 - 10	Milled	Non-Traction
21-97-15	Uncalcined phlogopyte	08 - 10	Milled	Non-Traction
21-97-16	Uncalcined phlogopyte	10 ± 01	Milled	Non-Traction

Available size of sheets

1000 mm X 780 mm ± 10 mm
780 mm X 500 mm ± 10 mm